UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,569	10/24/2003	Claudio R. Laraia	ICN001	2156

34496 7590 02/23/2009

RICHARD C. CALDERWOOD
2775 NW 126TH AVE
PORTLAND, OR 97229-8381

EXAMINER	
PAUL, DISLER	

ART UNIT	PAPER NUMBER
2614	

MAIL DATE	DELIVERY MODE
02/23/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/693,569	LARAIA, CLAUDIO R.	
	Examiner	Art Unit	
	DISLER PAUL	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment wherein "the amplifier control" with respect to claims 1, 12, 26 have been considered but are moot in view of the new ground(s) of rejection. Harris (US 5,339,362).

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 5, 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated over Harris (US 5,339,362).

Re claim 1, Harris discloses a car audio amplifier system for use with a head unit of an automobile system, wherein the head unit and the amplifier system comprise separate components, the amplifier system comprising: an amplifier control unit couplable to the head unit including: at least one input connector for receiving at least one respective channel of audio signal from the head unit(fig.1 (16,12); col.3 line 22-35/head unit and amplifier control coupled); circuitry, couple to receive the audio signal from the input connector (fig.5; col.8/circuitry with input/output interfaced to receive channel from audio source or head), for modifying the received audio signal and at least one control for determining a characteristic of the modifying and at least one output connector for outputting the modified audio signal (col.8/circuitry with pin input/out port for receiving head signal and for modifying the audio signal receive via head or source) and the amplifier unit physically separate from and couple to the amplifier control unit (fig.1 (12,14)) and including ,

an input connector for receiving the modified audio signal output from the amplified control unit, amplification circuitry coupled to the input connector for amplifying the modified audio signal and an output connector for outputting the amplified modified audio signal to a loudspeaker(fig.1 (14); col.3 line 34-40; fig.8-11; col.14 line 15-65).

Re claim 2, the car audio amplifier system of claim 1 wherein the circuitry of the amplifier control unit includes a pre-amplifier (fig.208; col.8; col.10 line 1-15).

Re claim 5, the car audio amplifier system of claim 1 wherein the amplifier unit includes a plurality of input connectors; and the amplifier circuitry amplifies audio signals provided at a selected one of the plurality of input connectors (fig.8-13; col.14 line 15-67; col.15 line 1-6/interconnections of input).

Re claim 8, the car audio amplifier system of claim 1, wherein the characteristic comprises gain (*"fig.1 (12); col.8/amplified/gain of control)"*).

Re claim 9, the car audio amplifier system of claim 1 wherein: the amplifier control unit comprises a plurality of controls each for determining a respective one of a plurality of characteristics; and the plurality of characteristics comprises gain and at least one of

high pass filter, low pass filter, delay, phase, subsonic filter, subwoofer parametric frequency, and bass boost (col.12 line 5-35; col.7-8; /signals at amplifier to be controlled with filter and gain/amplified).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 12-19; 21; 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (US 5,339,362) and Von (US 6,377,694 B1).

Re claim 12, Harris disclose of an amplifier system for use in a vehicle which include a passenger compartment having a head unit providing a plurality of audio channels , the amplifier system comprising: an amplifier control unit comprising, a control unit input connector for receiving the plurality of audio channel signals from the head unit (fig.1 (16,12); col.3 line 22-35/head unit and amplifier control coupled), and a plurality of amplifier controls including at least a gain control; circuitry coupled to the control unit input connector, for modifying the plurality of audio signals in response to

setting of the settings of the amplifier controls, and a control unit output connector for outputting the plurality of modified audio signals (fig.1 (16,12)-head and amplifier control respectively; col.3 line 25-55; col.5-9 and all channels control by (16); col.12 line 5-30/with audio input and controller and circuitry for modifying the audio signal receive via head via controls as per interface board to be amplified/gain the audio signal).

However, Harris failed to disclose of the specific wherein the amplifier control unit adapted to mount in the passenger compartment. But, Von Rijsbergen disclose of a system wherein the concept of the amplifier control unit adapted to mound in the passenger compartment (fig.2; col.2 line 35-45; col.5 line 20-45). Thus, taking the combined teaching of Harris and Von Rijsbergen as whole, it would have been obvious for one of the ordinary skill in the art to have modified Harris with the amplifier control unit adapted to mound in the passenger compartment for taking advantage of the cooler air in the passenger compartment in hot weather so that the amplifier may more efficiently dissipate heat from the circuit.

the combined teaching of Harris and Von Rijsbergen as whole, further disclose of the amplifier unit physically distinct form the amplifier control unit and comprising: an amplifier input connector coupled to the control unit output connector to receive the modified audio signals and amplifier circuitry coupled to the amplifier input

connector for amplifying the modified audio signals and speaker terminals coupled to the amplifier circuitry for outputting the amplified modified audio signals (fig.1 (14); col.3 line 34-40; fig.8-11; col.14 line 15-65).

Re claim 13, the amplifier system of claim 12 further comprising: a cable coupling the amplifier input connector to the control unit output connector(col.14 line 55-65, fig.10).

Re claim 15, the amplifier system of claim 12 wherein the plurality of controls comprises all of the amplifier system's gain controls (*"fig.1 (12); col.8/amplified/gain of control)"*).

Re claim 16, the amplifier of claim 12, wherein the plurality of amplifier control include a filter control (col.12 line 5-12; col.10 line 40-60/board with filter capabilities).

Re claim 17, the amplifier system of claim 16, wherein the plurality of amplifier controls further include a filter control (col.8/with port for delay controls).

Re claim 18, the amplifier control of claim 17, but, Harris failed to disclosed to the specific wherein the plurality of amplifier controls includes a phase control.

But, official notice is taken the concept wherein the plurality of amplifier controls includes a phase control is well known in the art, thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Harris and Von Rijsbergen as whole, with the concept wherein the plurality of amplifier controls includes a phase control for improving quality of audio sound with respect to noise.

Re claim 19, the amplifier system of claim 18, wherein the plurality of amplifier controls includes a bass boost control (col.12 lien 10-20).

Re claim 14, the amplifier system of claim 13 wherein: but, the combined teaching of Harris and Von Rijsbergen as whole, fail to disclose of the control unit output connector comprises a DIN connector, the amplifier input connector comprises a DIN connector, and the cable comprises a DIN umbilical cable. But, official notice is taken the concept wherein having a unit and connector with a DIN connector, cable comprises a DIN umbilical cable is well known in the art, thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Harris and Von as whole, with the specific wherein such a unit and connector with a DIN connector, cable comprises a DIN umbilical cable for providing interconnection of the audio channel.

Re claim 21, the amplifier system of claim 12, wherein the plurality of amplifier controls further includes a multi-channel equalizer (col.12 line 5-25).

Re claim 25, the amplifier system of claim 12 wherein the plurality of audio channel signals provided by the head unit includes Front Left, Front Right, Rear Left, and Subwoofer audio channel signals (col.12 line 5-40/under control by head including bass channel).

But, the combined teaching of Harris and Von Rijsbergen as whole, of the head unit include the *Center;* Rear Right channel. But, official notice is taken such concept wherein having such specific of the *Center;* Rear Right channel is well known in the art. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Harris and Von Rijsbergen as whole, with having the *Center;* Rear Right channel for enhancing audio sound effect.

The combined teaching of Harris and Von Rijsbergen as whole, further disclose of the wherein the plurality of amplifier controls comprises: subwoofer gain and subwoofer bass boost and channel gain (col.8; col.10 line 62-col.111 line 5; col.12 line 5-10).

But, the combined teaching of Harris and Von Rijsbergen as whole, failed to disclose of the specific wherein amplifier comprises: a

Front gain, Front high pass filter, Center gain, Center high pass filter, Center delay, Rear gain,Rear high pass filter, Rear delay, Subwoofer low pass filter, Subwoofer phase, Subwoofer subsonic filter, Subwoofer parametric frequency. But, it is noted the concept of wherein having an amplifier control comprises: a Front gain, Front high pass filter, Center gain, Center high pass filter, Center delay, Rear gain,Rear high pass filter, Rear delay, Subwoofer low pass filter, Subwoofer phase, Subwoofer subsonic filter, Subwoofer parametric frequency is simply the designer's need and wherein the combination of known objects which would yield predictable result. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Harris and Von Rijsbergen as whole, with the amplifier comprises: a Front gain, Front high pass filter, Center gain, Center high pass filter, Center delay, Rear gain,Rear high pass filter, Rear delay, Subwoofer low pass filter, Subwoofer phase, Subwoofer subsonic filter, Subwoofer parametric frequency for improving quality of audio sound with respect to noise.

Re claim 26, Harris disclose of method whereby a person adjust the audio characteristic of an audio system, the audio system having a head unit ,an amplifier control unit coupled to the head unit , and loudspeaker coupled to an amplifier, all channels gain controls for the amplifier being located on the control unit, wherein the head unit, *the control unit* and the loudspeakers are located within a

passenger compartment of a vehicle (fig.1 (16,12,14); col.2-col.9), the method comprising: being positioned within a passenger compartment; operating the head unit to provide a plurality of audio channels signals to the control unit, while listening to the sound produced by the loudspeakers which are driven by the amplifier according to modified audio channel signals from the control unit (fig.1 (16); col.3 line 30-40).

However, Harris failed to disclose of the specific wherein the control unit being located in the passenger compartment of the vehicle. But, Von Rijsbergen disclose of a system wherein the concept of the control unit being located in the passenger compartment of the vehicle (fig.2; col.2 line 35-45; col.5 line 20-45). Thus, taking the combined teaching of Harris and Von Rijsbergen as whole, it would have been obvious for one of the ordinary skill in the art to have modified Harris with the control unit being located in the passenger compartment of the vehicle for taking advantage of the cooler air in the passenger compartment in hot weather so that the amplifier may more efficiently dissipate heat from the circuit.

the combined teaching of Harris and Von Rijsbergen as whole, further teach of the adjusting the amplifier control on the control unit to control a modification by the amplifier control unit of one of the audio channel signals provided by the head unit until a desired

acoustic result is obtained by such adjusting (fig.1 (16)/enable adjusting the amplifier control).

Re claim 27, the method of claim 26 wherein: adjusting the amplifier control comprises adjusting a channel gain control (col.8/enable channel amplification or gains based on the control board).

Re claim 28, the method of claim 27, wherein adjusting the amplifier control further comprise adjusting a channel filter control (col.12 line 5-12; col.10 line 40-60/board with filter capabilities).

4. Claims 3-4; 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (US 5,339,362).

Re claim 3, the car audio amplifier system of claim I wherein: the input connector of the amplifier control unit is further for receiving at least two channels of audio signal from the head unit; the output connector of the amplifier control unit is further for outputting at least two channels of modified audio signal (col.8/audio channels from source to amplifier control unit); However, Harris fail to disclose of the specific wherein the circuitry of the amplifier control unit includes means for combining two channels of audio signal from the head unit and providing the combined signal to one channel at the output connector of the amplifier control unit. But, official notice is taken such concept of having circuitry of includes means for combining two channels of audio

signal from the head unit and providing the combined signal to one channel at the output connector of the amplifier control unit is well known in the art. thus, it would have been obvious for one of the ordinary skill in the art to have modified Harris with the concept of circuitry of includes means for combining two channels of audio signal from the head unit and providing the combined signal to one channel at the output connector of the amplifier control unit for creating a synthesizing image sound signals.

RE claim 4, the car audio amplifier system of claim 3 wherein: the two channels of audio signal from the head unit include a Left channel and a Right channel; and the circuitry of the amplifier control unit provides a modified Left channel signal to a Front Left channel and a Rear Left channel at the control unit's output connector, a modified Right channel signal to a right channel at the control unit's output connector and a subwoofer channel at the amplifier control unit's output connector (col.8; col.10 line 55-67; col.12 line 20-35; col.11 line 1-7; col.12 line 5-20/plurality of modified channels including left and right of the audio signals for the channel including the front right and front rear), However, Harris fail to disclose of the specific wherein such a modified Right channel signal to a Front Right channel and a Rear Right channel at the control unit's output connector ; and a combination of the modified Left channel signal and the modified Right channel signal to one of a Center channel. But, official notice is taken such concept of having wherein such a modified Right channel signal to a Front Right channel and a Rear

Right channel at the control unit's output connector; and a combination of the modified Left channel signal and the modified Right channel signal to one of a Center channel is well known in the art. thus, it would have been obvious for one of the ordinary skill in the art to have modified Harris with the concept of wherein such a modified Right channel signal to a Front Right channel and a Rear Right channel at the control unit's output connector ; and a combination of the modified Left channel signal and the modified Right channel signal to one of a Center channel for creating a synthesizing image sound signals.

Re claim 7, the car audio amplifier system of claim 1 (col.6-8/controller for signals in housing) wherein: However, Harris failed to disclose of the specific wherein all of the controls of the audio amplifier system are located on the control unit. But, it is noted the concept of having all of the controls of the audio amplifier system are located on the control unit is nothing more than manually controlling the audio signals which yields predictable results instead of automatically performed. thus, it would have been obvious for one in the ordinary skill in the art to have modified Harris with concept of having all of the controls of the audio amplifier system are located on the control unit for manually modified the audio signals.

5. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (US 5,339,362) and Applicant's admitted prior art referred as (APA).

RE claim 6, the car audio amplifier system of claim 5 (col.16 line 25-40/with input and output connectors), But, Harris fail to disclose of the specific wherein: the amplifier unit includes a first input connector comprising a set of RCA jacks, and a second input connector comprising a DIN connector. But, APA disclose of the similar concept of an amplified unit wherein the input connector comprising an RCA jack and a second input connector comprising a DIN connector(" par [0005]; *par [0006] line 15-17/Din connector may be included in system*"). Thus, taking the combined teaching of Harris and APA as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Harris with the similar concept of the amplified unit wherein the input connector comprising an RCA jack and a second input connector comprising a DIN connector for interconnecting the audio signals to the amplified unit.

While, the combined teaching of Harris and APA as a whole, fail to disclose of the specific wherein having a set of RCA jacks, but, it is noted such concept of having such a set of RCA jacks is simply the designer's need. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Harris and APA as a whole, with the specific wherein having a set of

RCA jacks for interconnecting additional audio signals to the amplified unit.

6. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (US 5,339,362) and Kumar (US 6,961,004 B2).

Re claim 10, the car audio amplifier system of claim 1, but, Harris fail to disclose of the specific wherein the amplifier unit comprises a docking bay adapted for docking the control unit.

But, Kumar disclose of a system wherein similar concept of having a unit comprises a docking bay adapted for docking the control unit (fig.12; col.10 line 5-10; col.10 line 35-45). Thus, taking the combined teaching of Harris and Kumar as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Harris with the concept of having a unit comprises a docking bay adapted for docking the control unit for *physically engaging* and disengaging the device to one another.

Re claim 11, the car audio amplifier system of claim 10 wherein: the docking bay comprises an input connector adapted to mate with the output connector of the control unit when the control unit is docked (col.10 line 5-10).

7. Claims 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (US 5,339,362) and Von (US 6,377,694 B1) and Kumar (US 6,961,004 B2).

Re claim 24, the car audio amplifier system of claim 12, but, the combined teaching of Harris and Von as a whole, fail to disclose of the specific wherein the amplifier unit comprises a docking bay into which the amplifier control unit can be docketed and means for connecting the control unit output to the amplifier input connector.

But, Kumar disclose of a system wherein similar concept of a unit comprises a docking bay into which the amplifier control unit can be docked and means for connecting the control unit output to an input connector (fig.12; col.10 line 5-10; col.10 line 35-45). Thus, taking the combined teaching of Harris and Von and Kumar as a whole, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Harris and Von as a whole, a unit comprises a docking bay into which the amplifier control unit can be docketed and means for connecting the control unit output to an input connector for *physically engaging* and disengaging the device to one another.

4. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (US 5,339,362) and Von (US 6,377,694 B1) and further in view of Koulopoulos et al.("5,243,344").

Re claim 22, the amplifier system of claim 12 wherein the amplified control unit further includes: an auxiliary input connector for receiving audio channel signals from an auxiliary unit and modifying the signals("col.8; fig.5/plurality of input channels connectors; However, the combined teaching of Harris and Von as a whole, fail to disclose of the input selector control for selecting whether the circuitry modifies the audio channel signals from the input connector or the audio channel signals from the auxiliary input connector. However, Koulopoulos et al. disclose a circuitry modifies the audio channel signals from the input connector or the audio channel signals from the auxiliary input connector ("*col. 14 line 45-55*"). Thus, taking the modified combined teaching of harris and Von and Koulopoulos et al as a whole, it would have been obvious to one of ordinary skill in the art to modify Harris and Von et al. as a whole, by incorporating circuitry modifies the audio channel signals from the input connector or the audio channel signals from the auxiliary input connector for selectively controlling the audio channel gain.

Re claim 23, the amplifier system of claim 22, but, the combined teaching of Harris and Von and Koulopoulos et al as a whole, fail to disclose of the specific wherein the amplifier control unit further includes: input volume means for compensating for signal level

difference between audio channel signals from the input connector and audio channel signals from the auxiliary input connector.

But, official notice is taken the concept of having input volume means for compensating for signal level difference between audio channel signals from the input connector and audio channel signals from an auxiliary input connector is Well known in the art. thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Harris and Von and Koulopoulos et al as a whole, with the input volume means for compensating for signal level difference between audio channel signals from the input connector and audio channel signals from the auxiliary input connector for creating a balance/equal sound output signals.

While, the combined teaching of Harris and Von and Koulopoulos et al as a whole, disclose of the switching and for selector control and difference in audio volume for the loudspeaker (see above). But, the combined teaching of Harris and Von and Koulopoulos et al as a whole, fail to disclose of the specific whereby such a user switches being at between the head unit and the auxiliary unit by operating the input selector control, a difference in audio volume from the loudspeakers is controlled. But, it is noted having the user switches being at between the head unit and the auxiliary unit by operating the input selector control is simply the designer's preference with having known elements which would yield predictable results. thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Harris

and Von and Koulopoulos et al as a whole, with such user switches being at between the head unit and the auxiliary unit by operating the input selector control for selecting the audio channels for improvement sound with noise.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./
Examiner, Art Unit 2614
/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2614